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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,257	08/21/2003	Kailing James Su	139137	7326
24587	7590	10/05/2007		
ALCATEL LUCENT INTELLECTUAL PROPERTY & STANDARDS 3400 W. PLANO PARKWAY, MS LEGL2 PLANO, TX 75075			EXAMINER JUNTIMA, NITTAYA	
			ART UNIT	PAPER NUMBER
			2616,	
			MAIL DATE	DELIVERY MODE
			10/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/645,257	SU ET AL.	
	Examiner	Art Unit	
	Nittaya Juntima	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 July 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed on 7/20/2007.
2. Claims 1-22 are pending.
3. The objections to the drawings, specification, and claims and the rejection under 35 U.S.C. 112, second paragraph are withdrawn in view of applicant's amendment.
4. Claims 1- 22 remain rejected under 35 U.S.C. 103(a).
5. Claims 15 and 16 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claim Objections

6. Claims 2, 9, and 16 are objected to because of the following informalities:
 - in claim 2, line 2, "a[n]" should be changed to "a"; *note that instead of single bracket, double brackets or strike-through should be used for deletion of five or fewer consecutive characters, see MPEP §714;*
 - in claim 9, line 10, "[the]" should be deleted, and "system[s]" should be changed to "system";
 - in claim 16, line 2, "[DC]" should be deleted.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1- 14 and 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choi (US 2004/0109414 A1) in view of Shin (US 2002/0138643 A1).

Regarding claim 1, Choi teaches a packet router (300, Fig. 3), comprising:

A resource server system RSS (router control unit 310, Fig. 3 and 400 in Fig. 4) that controls forwarding of packets in the packet router (paragraphs 23-24).

A flow measurement system FMS ((i) the line interface units 321-324 in Fig. 3 which function as an eGSMP slave 702 in Fig. 7 and (ii) router control unit 310 which functions as eGSMP master, collectively) that monitors packet flows through the packet router and generates statistic reports (paragraphs 23 and 34).

A hardware forwarding engine HFE (the ingress processing unit 540 and the egress processing unit 550 in Fig. 5, collectively) that receives and forwards packets in response to the RSS controls (paragraph 25).

However, Choi fails to explicitly teach (i) a management agent MA that manages a differentiated services policy information data base operable to store policies on forwarding packets in the packet router, (ii) the control forwarding of packets by the RSS is based on adaptive selections of policies from the policy information database, (iii) the statistics reports

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affect the RSS selection of control, and (iv) wherein the FMS includes a MRC that receives adaptive selections of policies from the policy information database.

As shown in Fig. 1 of an analogous art, Shin teaches a system for adaptive controlling network traffic to a server with an adaptive traffic-shaping feature having a policy manager daemon (equivalent to I; MA reads on a policy manager daemon) for storing a set of rule data which represents different service policies for servicing the network traffic (paragraphs 36, 39, 80-84, and claim 11), the load controller/means (equivalent to ii; RSS reads on the load controller/means) for adaptively selecting a subset of the rule data from the storage based on the overload/underload signals (equivalent to iii, note that the format of statistic reports is not claimed, therefore, statistic reports are interpreted as the overload/underload signals which are generated based on system statistics) generated by a monitor (paragraphs 39, 67, and 70-72), and wherein (i) the monitor and (ii) the load controller/means (collectively equivalent to the FMS including a monitor resource controller MRC) together receive adaptive selection of the subset the rule data/service policies from the storage (equivalent to iv, see paragraph 39).

Given the teaching of Shin, it would have been obvious to one skilled in the art at the time of the invention to incorporate and apply the adaptive traffic-shaping concept of Shin in the teaching of Choi such that the limitations i, ii, iii, and iv would be included as claimed. The suggestion/motivation to do so would have been to adapt the traffic shaping policies without any a priori capacity analysis or static resource reservation as suggested by Shin (paragraph 59, lines 9-11).

Regarding claim 2, Choi does not teach that the MA resides in a management plane of a communications network.

However, it is inherent in Shin that the policy manager daemon (equivalent to the MA) must reside in a management plane of the Internet (equivalent to a communications network) since the policy manager creates filter-hierarchies which are used to filter internet network traffic (paragraphs 39-40, 71-72, 81-84).

Given the teaching of Shin, it would have been obvious to one skilled in the art at the time of the invention to modify the teaching of Choi such that the MA would reside in a management plane of a communications network. The suggestion/motivation to do so would have been to determine the server's (equivalent to the packet router's) operating point from oscillations of the load-controller (equivalent to RSS) and reconfigures the load-controller's FH (equivalent to RSS's selection of policies) accordingly (Shin, paragraph 81, lines 9-12).

Regarding claim 3, Choi teaches that the RSS resides in a control plane of a communications network (IP network 100, Fig. 1, paragraph 21) (router control unit 310, Fig. 3 functions as eGSMP master, paragraph 23).

Regarding claims 4 and 5, Choi also teaches that the HFE resides in a data plane of a communication network comprising an IP network (IP network 100, Fig. 1, paragraph 21) (the ingress processing unit 540 and the egress processing unit 550 in Fig. 5, collectively, that performs packet forwarding function including a DiffServ based on QoS function, paragraph 25).

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Regarding claim 6, Choi teaches that the FMS distributes the statistics reports generated by the FMS (as shown in Fig. 7, statistics information is sent to eGSMP MASTER 701 by eGSMP SLAVE 702 in step S74, paragraphs 23 and 34).

Regarding claim 7, Choi teaches that the FMS includes a monitor resource abstraction library MRAL that functions as a real-time monitor executive and generates the statistics reports (as shown in Fig. 7, statistics information is sent in step S74 and real time monitoring must be included in order for event/status information to be sent in step S74, therefore, the eGSMP SLAVE 702 must include a MRAL, paragraphs 23 and 34).

Regarding claim 8, Choi fails to explicitly teach that the FMS includes a monitor data collector/data source controller MDC for receiving data collected at observation points of the HFE.

However, Shin teaches that the monitoring module (equivalent to the FMS with MDC) that assesses server capacity based on its observations of different load indicators (equivalent to receiving data collected at observation points of the HFE) (paragraph 67).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to further modify the teaching of Choi to apply the data collection concept of Shin such that the FMS would include a monitor data collector/data source controller MDC for receiving data collected at observation points of the HFE as claimed. The suggestion/motivation to do so would have been to generate a notification if the load-index (equivalent to data collected) falls into a certain range as taught by Shin (paragraph 67, lines 8-10).

Claims 9-14 are system claims containing similar limitations to claim 1, and are therefore rejected under the same reason set forth in the rejection of claim 1, with an addition that Choi does not teach that the monitoring of packet flows is based on an interpreted service level agreement related to the adaptive selections of policies from the policy information database.

However, Shin teaches that the monitoring module monitors server capacity based on the different load indicators which will be used to compute the server load-index (equivalent to monitoring packet flows through the packet router based on interpreted service level agreement) and the load controller will use the received server load-index to determine the least restrictive filter, which is part of FH created and modified by the policy manager, that avoids server overload (equivalent to the interpreted service level agreement being related to the adaptive selections of policies from the policy information database). See paragraphs 39, 67, 70-71 and 79-82.

Therefore, it would have been obvious to one skilled in the art at the time of the invention to incorporate and apply the teaching of Shin such that the monitoring of packet flows is based on an interpreted service level agreement related to the adaptive selections of policies from the policy information database. The suggestion/motivation to do so would have been to provide criteria for traffic monitoring which will affect the selection of traffic shaping policies in order to prevent traffic overload condition.

Claims 17-22 are method claims corresponding to system claim 9, and are therefore rejected under the same reason set forth in the rejection of claim 9.

Response to Arguments

9. Applicant's arguments filed 7/20/2007 have been fully considered but they are not persuasive.

A. In the remarks regarding claim 1, the applicant argues that neither Choi nor Shin or the combination thereof teaches that FMS includes a MRC that receives adaptive selections of policies from the policy information database.

In response, Choi teaches a flow measurement system FMS ((i) the line interface units 321-324 in Fig. 3 which function as an eGSMP slave 702 in Fig. 7 and (ii) router control unit 310 which functions as eGSMP master, collectively) that monitors packet flows through the packet router and generates statistic reports (paragraphs 23 and 34). And, as shown in Fig. 1, Shin teaches that (i) the monitor and (ii) the load controller/means (collectively equivalent to the FMS including a monitor resource controller MRC) together receive adaptive selection of the subset the rule data/service policies from the storage (equivalent to the FMS includes a MRC that receives adaptive selections of policies from the policy information database, see paragraph 39).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to incorporate Shin into Choi such that the FMS would include a MRC that receives adaptive selections of policies from the policy information database as claimed in order to adapt the traffic shaping policies without any a priori capacity analysis or static resource reservation as suggested by Shin (paragraph 59, lines 9-11).

B. In the remarks regarding claims 9 and 17, the applicant argues that the combined teaching of Choi and Shin does not teach that the monitoring of packet flows is based on an

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interpreted service level agreement related to the adaptive selections of policies from the policy information database.

However, Shin teaches that the monitoring module monitors server capacity based on the different load indicators which will be used to compute the server load-index (equivalent to monitoring packet flows through the packet router based on interpreted service level agreement) and the load controller will use the received server load-index to determine the least restrictive filter, which is part of FH created and modified by the policy manager, that avoids server overload (equivalent to the interpreted service level agreement being related to the adaptive selections of policies from the policy information database). See paragraphs 39, 67, 70-71 and 79-82.

Therefore, it would have been obvious to one skilled in the art at the time of the invention to incorporate and apply the teaching of Shin into Choi such that the monitoring of packet flows would be based on an interpreted service level agreement related to the adaptive selections of policies from the policy information database. The suggestion/motivation to do so would have been to provide criteria for traffic monitoring which will affect the selection of traffic shaping policies in order to prevent traffic overload condition.

Note that interpreted service level agreement is not further defined, therefore reads on the different load indicators of Shin. Accordingly, the combined teaching of Choi and Shin teaches limitations as claimed.

Conclusion

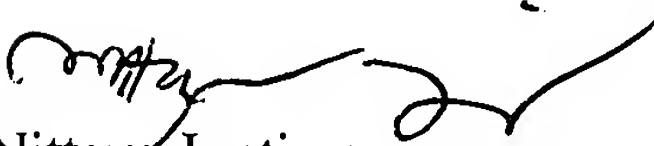
10. Any inquiry concerning this communication or earlier communications from the

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examiner should be directed to Nittaya Juntima whose telephone number is 571-272-3120. The examiner can normally be reached on Monday through Friday, 8:00 A.M - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Nittaya Juntima
Patent Examiner, AU 2616
September 28, 2007